

CHERKINSKIY, S.M.; ZASLAVSKAYA, R.M.

~~CONFIDENTIAL~~  
Fluorine in subterranean waters in RSFSR as a factor in fluorosis and  
dental caries morbidity. Gig. sanit., Moskva no.5:22-26 May 1953.  
(GIML 25:1)

1. Of the Scientific-Research Sanitary Institute imeni Erisman.

ZASLAVSKAYA, R. M.

Zaslavskaya, R. M. - "Clinical-Experimental Material on the Study of Neurovascular Reactions in Patients with Disordered Venous Circulation." Min Health USSR. Central Inst for the Advanced Training of Physicians. Moscow, 1956 (Dissertation for the Degree of Candidate in Medical Sciences).

So: Knizhnaya Lotopis', No. 10, 1956, pp 116-127

CHERKINSKIY, S.M. (Moskva); ZASLAVSKAYA, R.M., (Moskva)

Significance of fluorine in potable water in the development of  
endemic goiter. Probl.endok. 1 gorm. 2 no.4:70-75 J1-Ag '56.  
(MIRA 9:11)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo sanitarnogo  
instituta imeni Erismana.

(GOITER, epidemiology,  
endemicity, relation to fluoridation (Rus))  
(FLUORIDATION, effects,  
on goiter endemicity (Rus))

ZASLAVSKAYA, R.M.

Vascular reactions in disorders of coronary blood circulation.  
Terap. arkh. 28 no.4:28-36 '56. (MLHA 9:9)

1. Iz 40-y kafedry terapii (zav. chlen-korrespondent AMN SSSR prof. P.I.Yegorov) Tsentral'nogo instituta usovershenstvovaniya vrachev na baze Tsentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya SSSR.

(CORONARY DISEASE, physiol.

vasc. reactions, eff. of CNS funct.)

(BLOOD VESSELS, in various dis.

coronary dis., CNS funct. in)

(CENTRAL NERVOUS SYSTEM, in various dis.

coronary dis., relation to vasc. reactions)

ZASLAVSKAYA, R.M.

Effect of reserpine on pulmonary circulation and the bronchial tone. Pat.fiziol.i eksp.terap. 9 no.4:64-69 JI-Ag '65.

(MIRA 18:9)

1. IV kafedra terapii (zav. -- chlen-korrespondent AMN SSSR prof. P.I.Yegorov) Tsentral'nogo Instituta usovershenstvovaniya vrachey i Instituta farmakologii i khimioterapii (direktor -- deystvitel'nyy chlen AMN SSSR prof. V.V.Zakusov) AMN SSSR, Moskva.

ZASLAVSKAYA, R.M.; SHEINA, A.N.

Effect of ultrasound on the tone of bronchial musculature  
and hemodynamic indices; experimental studies. Trudy TSIU 72:  
50-54 '64. (MIRA 18:11)

1. IV kafedra terapii (zav. chlen-korrespondent AMN SSSR, prof.  
P.I. Yegorov), I kafedra fizicheskoy terapii (zav. - dotsent  
A.P. Speranskiy) Tsentral'nogo instituta usovershenstvovaniya  
vrachev.

ZASLAVSKAYA, R.M.

Effect of chloracizin and iprazid on bronchial muscle tonus and pulmonary arterial pressure. Farm. i toks. 27 no.1:22-25 Ja-F '64. (MIRA 17:11)

1. IV kafedra terapii (zav. - chlen-korrespondent AMN SSSR prof. P.I. Yegorov) Tsentral'nogo instituta usovershenstvovaniya vrachey i Institut farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov) AMN SSSR.

ZASLAVSKIYA, R.M.; MAKAROVA, K.A.

Case report on amyloidosis of the cardiovascular system. Ter.  
arkh. 35 no.7:109-113 J1'63 (MIRA 17:1)

1. Iz IV kafedry terapii Tsentral'nogo instituta usovershenstvovaniya vrachey (zav. - chlen-korrespondent AMN SSSR prof. P.I. Yegorov) i patologoanatomicheskogo otdeleniya Tsentral'noy klinicheskoy bol'nitsy (nachal'nik V.N.Zakharchenko) Ministerstva putey soobshcheniya.



ZASLAVSKAYA, R.M., kand.meditsinskikh nauk

Problems in water hygiene treated at a meeting of the Austrian  
Society of Microbiologists and Hygienists. Gig.1 san. 25 no.9:  
89-93 S '60. (MIRA 13:9)

(WATER SUPPLY)

ZASLAVSKAYA, R. M., GAROVICH, R. D., CHERKINSKIY, S. N.

"Results of the study of endemic fluorosis in the USSR."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists  
and Infectionists, 1959.

EXCERPTA MEDICA Sec 18 Vol 3/8 Cardio. Dis. Aug 59

2026. Ballistocardiographic changes in patients with chronic non-specific diseases of the lungs and cardiopulmonary insufficiency (Russian text) ZASLAVSKAYA R. M. Moscow Terap. Arkh. 1959, 31/1 (34-40) Graphs 11

The study of mechanics of the heart with the aid of ballistocardiography made it possible to reveal impairment of the contractile function of the myocardium in patients with chronic non-specific diseases of the lungs. The more characteristic changes: high amplitude of all the ballistocardiographic waves, marked respiratory oscillations of the IJ segment, relatively high H and L waves, elongation of the mechanical systole, the symptom of retardment of the beginning of the mechanical systole in relation to the electrical. Patients suffering additionally from cardiopulmonary insufficiency often had ballistocardiographic waves of low amplitude which is explained by considerable hypertension existing in the pulmonary circulation. As the symptoms of pulmonary, as well as cardiopulmonary insufficiency, decreased or were removed, a number of ballistocardiographic changes showed an improvement. Functional test with physical exercise (Master's test) made it possible, in separate instances, to spot the initial stages of cardiopulmonary insufficiency. As the pulmonary ventilation improved under the influence of broncholytic agents improvement was noted in a number of ballistocardiographic changes.

(XVIII, 6, 15)

ZASLAVSKAYA, R.M., kand.med.nauk

Ballistocardiographic changes in chronic nonspecific pulmonary diseases and in cardiopulmonary insufficiency [with summary in English]. Terap.arkh. 31 no.1:34-46 Ja '59. (MIRA 12:2)

1. Iz filiala legochnoy patologii (zav. - chlen-korrespondent AMN SSSR prof. P.I. Yegorov) Instituta terapii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.L. Myasnikov).

(BALLISTOCARDIOGRAPHY, in var. dis.

pulm. & heart dis. & non-specific pulm. dis. (Rus))

(PULMONARY HEART DISEASE, diag.

ballistocardiography (Rus))

(LUNG DISEASES, diag.

ballistocardiography in non-specific dis. (Rus))

ZASLAVSKAYA, R.M.

EXCERPTA MEDICA Sec.3 Vol.11/7 Endocrinology July 57

1297. CHERKINSKIY S.N. and ZASLAVSKAYA R.M. F.F. Erisman's Inst. of Sanit., Moscow. \*Significance of fluorine in drinking water in the development of endemic goitre (Russian text) PROBL. ENDOKR. 1956, 2/4 (70-75)

Examining a number of areas with endemic goitre, the authors were not able to relate the development of goitre to an increased concentration of fluorine in the drinking water.  
Dil'man - Leningrad

EXCERPTA MEDICA Sec. 6 Vol. 11/5 May 57

ZASLAVSKAYA R.M.

3344. ZASLAVSKAYA R.M. 1st Therap. Dept. of Centr. MPS. The electric sensitivity of the eye in patients with coronary insufficiency (Russian text) KLIN. MED. (Mosk.) 1955, 33/1 (58-63)  
Tables 1 illus. 3

Cardiac infarction is now generally assumed to be of a cortico-visceral genesis. However, examination of the activity of the cerebral cortex for a clear judgment is difficult. It was therefore advised to examine the cerebral cortex through the visual apparatus. The object of the examination was to determine whether there were relationships between the electric stimulation threshold and processes in the organism. It had also to be established whether such tests can be effected without damage to the eye, and especially whether such damage would become manifest earlier than other signs in organs. In practice the test was applied by examination of the electric stimulability of the eye at dark adaptation in 100 patients with disturbances of the coronary circulation. The patients held an indifferent electrode in the hand, the different electrode was placed against the temple in the external canthus after dark-adaptation for 10 min. Then, a gradually increasing stimulating current was applied, until the patient perceived impressions of light. This minimal tension is the rheobase, which in dark-adaptation in normal persons is about 5 to 6 v. The lower the tension, the greater the sensitivity of the eye. Out of the 77 male and 23 female patients, 50 had stenocardia and 50 cardiac infarction. In both diseases, the ocular sensitivity was always decreased during the painful period. However, at the stage of repair of the infarction, the sensitivity gradually increases, which is verified by curves. Administration of nitroglycerin also led to increased ocular sensitivity. In deterioration and further development of the infarction, an increase, and finally disappearance of the sensitivity of the eye to stimulating currents was also observed. These phenomena may be caused by better cardiac circulation as well as by cure of the infarction or better cerebral circulation. (VI. 8, 12)

Country : USSR  
 Category= : Pharmacology and Toxicology. Toxicology. Poisonous Plants  
 Abs. Jour. : Ref Zhur-Biol, No 13, 1958, No 61599  
 Author : Zaslavskaya, S.; Izmaylova, N.  
 Institut. : Tashkent Medical Institute, AS UzSSR  
 Title : Toxicity of *Datisca Cannabina* and Pathohistological Changes in Organs, Produced by Its Administration to Experimental Animals  
 Orig. Pub. : V sb.: Nauchn. raboty stud. Tashkentsk. med. in-ta, Tashkent, AN UzSSR, 1956, 51-57  
 Abstract : The toxic properties of aqueous and alcoholic extracts of roots, leaves, seeds and seed capsules of *Datisca cannabina* were studied in experiments on frogs, mice and rabbits. The administration of these preparations to animals produced depression of the nervous system, lowering of reflex excitability and paralysis of the extremities. Pathohistological examination of the viscera revealed polyemia, stasis and various degenerative changes; the most striking changes

Card: 1/2

v - 49

Country : USSR V  
 Category : Pharmacology and Toxicology. Toxicology. Poisonous Plants  
 Abs. Jour. : Ref Zhur-Biol, No 13, 1958, No 61599  
 Author :  
 Institut. :  
 Title :  
 Orig Pub. :  
 Abstract : were observed in the central nervous system. Preparations from various parts of the plants possess a similar character of action, differing only in degree of toxicity. The most toxic are seeds and seed capsules. The lethal dose of the tincture prepared from the latter is 0.2 ml. for frogs and mice; lethal dose of a tincture from the leaves is 2 ml. for frogs and 1 ml. for mice.  
 -- F. S. Vorob'yeva

Card: 2/2



KHUTORYANSKIY, M.S., kand.tekhn.nauk; ZASLAVSKAYA, T., red.; ZELENIKOVA, Ye.,  
tekhredaktor

[Efficient building ceramics] Effektivnaya stroitel'naya keramika  
Kiev, Gos.Izd-vo lit-ry po stroi.i arkh.USSR. 1957. 28 p. (Ukraine.  
Gosudarstvennyi komitet soveta ministrov po delam stroitel'stva i  
arkhitektury. Informatsionnoe soobshchenie. no.2)

(MIRA 12:6)

(Building materials) (Ceramics)

BERDINSKIKH, Ivan Pavlovich; ZASLAVSEAYA, T., red.; ZELENKOVA, Ye..  
tekhn.red.

[Gluing of wood] Skleivanie drevesiny. Kiev, Gos.izd-vo lit-ry  
po stroit., i arkhitekt., 1959. 304 p. (MIRA 13:4)  
(Woodwork) (Gluing)

MARKOV, S.A.; ZASLAVSKAYA, T., red.; KOVAL'CHUK, G., tekhn.red.

[Determining economic parameters of urban gas supply systems]  
Opređenje ekonomichnykh parametrov gorodskikh gazovykh setei.  
Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1960. 60 p.  
(MIRA 14:1)

(Gas distribution)

ZASIAVSKAYA, T.

Economic conditions for the introduction of monetary wages  
to collective farmers. Vop.ekon, no.11:58-70 H '59.  
(MIRA 12:12)

(Collective farms) (Wages)

MARINCHENKO, A.I., kand.arkhitektury, red.; ZASLAVSKAYA, T., red.;  
NEMCHENKO, I., tekhn.red.

[Designing and building school houses] Proektirovanie i  
stroitel'stvo shkol'nykh zdani. Pod obshchei red. A.I.Marin-  
chenko. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR,  
1958. 198 p. (MIRA 12:4)

1. Akademiya arkhitektury URSR, Kiyev. Institut arkhitektury  
sooruzheniy.

(Schoolhouses)

ZASLAVSKAYA, T.

Equal wages for equal work on collective farms. Vop. ekon.  
no.10:25-37 0 '62. (MIRA 15:11)  
(Collective farms--Income distribution)

STRUTINSKIY, Aleksey Bonifat'yevich; ZASLAVSKAYA, T., red.; IOAKIMIS, A.,  
tekhn.red.

[Prefabricated elements of frameless, panel-constructed apartment  
houses] Sbornye konstruktii panel'nykh beskarkasnykh zhilykh domov.  
Kiev. Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1956. 87 p.  
(Apartment houses) (MIRA 11:2)  
(Precast concrete)

*ZASLAVSKAYA, T.*

SHEVCHENKO, Vladimir Avtonomovich; MANZHOSA, F.M., prof. doktor tekhn.nauk,  
nauchnyy red.; ZASLAVSKAYA, T., red.; IOAKIMIS, A., tekhn.red.

[Woodworking machinery and tools] Derevoobrabatyvayushchie stanki  
i instrumenty. Kiev, Gos. izd-vo lit-ry po stroit. i arkhitekt.  
USSR, 1957. 161 p. (MIRA 11:6)  
(Woodworking machinery)



ZASLAVSKAYA, T. (Novosibirsk)

Ways to evaluate labor on collective farms. Vop. ekon. no.10:  
64-73 0 '63. (MIRA 16:12)

KAPLAN, Yakov Zalmanovich; ZASLAVSKAYA, T., redaktor; ZELENKOVA, Ye.,  
tekhnicheskii redaktor

[Graphoanalytical computations of heating system elements]

Grafoanaliticheskie raschety elementov sistem otopeniia.

Kiev, Izd-vo Akademii arkhitektury Ukrainskoi SSR, 1955. 66 p.

(Heating engineering)

(MLRA 9:2)

LIBETMAN, Al'fred Davidovich, kand.tekhn.nauk; ZASIAVSKAYA, T., red.;  
NEMCHENKO, I., tekhn.red.

[Precast reinforced concrete ceilings] Sbornye zhelezobetonnye  
perekrytiia. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR,  
1959. 100 p. (MIRA 12:8)  
(Ceilings) (Precast concrete construction)

ZASLAVSKAYA, T.

New developments in the wages of collective farmers. Kop. ekon.  
no.3:148-156 Mr '58. (MIRA 11:4)  
(Collective farms) (Wages)

DZUGAYEV, Vladimir Andreyevich; VASILYENKO, Lev Vladimirovich; ZASLAVSKAYA, T.,  
red.; KEMCHENKO, I., tekhn. red.

[Luminaires] Osvetitel'nye pribory. Kiev, Gos. izd-vo lit-ry po  
stroit. i arkhitekt. USSR, 1958. 55 p. illus. (MIRA 11:8)  
(Electric lamps)

ZASLAVSKAYA, T.

LATASH, M.Ya., kand. tekhn. nauk; SAKHAROVA, N.A., kand. tekhn. nauk;  
ZASLAVSKAYA, T., red.; ZELENIKOVA, Ye., tekhn. red.

[Porous fillers for lightweight concrete keramzit and termozit]  
Poristye zapolniteli dlia legkikh betonov - keramzit i termozit;  
informatsionnoe soobshchenie No.3. Kiev, Gos. izd-vo lit-ry po  
stroit. i arkhitekt. USSR, 1957. 21 p. (MIRA 11:7)  
(Lightweight concrete) (Keramzit)

BERDINSKIY, Ivan Pavlovich; ZASLAVSKAYA, T., red.; ZELENKOVA, Ye.,  
tekhn.red.

[Wood gluing] Skleivanie drevesiny. Kiev, Gos.izd-vo lit-ry po  
stroit. i arkhitekt. USSR, 1959. 304 p. (MIRA 13:3)  
(Woodwork) (Gluing)

MOROZ, Ivan Ivanovich; ZASLAVSKAYA, T., redaktor; ZHELENKOVA, Ye., tekhnicheskiiy redaktor.

[Extending the season for producing structural ceramics] Prodlenie sezona proizvodstva stroitel'noi keramiki. Kiev, Izd-vo Akademii arkhitektury USSR, 1955. 94 p. (MLRA 8:12)  
(Ceramic industries)



ZASLAVSKAYA, T. B., Inzh.

O standartizatsii markirovki skhem vtorichnoy kommutatsii.  
Elektrichestvo, No. 1, 1952. Kuzbassgiproshakht

SO: Monthly List of Russian Accessions, Library of Congress, April <sup>2</sup> 1953, Uncl.

ZASLAVSKAYA, T.B., inzhener.

Simplified automatic starting scheme for synchronous compensators. Elek.  
sta. 24 no.5:58-60 My.'53. (MLRA 6:7)

(Electrical machinery, Synchronous) |

Card 2/2

SOV/112-57-5-10132

8 (2)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 78 (USSR)

AUTHOR: Zaslavskaya, T. B., Meshcheryakov, K. P.

TITLE: Principles of a Relay Protective System for 110-kv Two-Wire Ground-Return Rural Lines (Printsipy vypolneniya releynoy zashchity liniy 110 kv sel'skokhozyaystvennogo naznacheniya po sisteme "dva provoda — zemlya")

PERIODICAL: Tr. Transp. -energ. in-ta Zap.-Sib. fil AS USSR, 1956, Nr 5, pp 27-38

ABSTRACT: Expanding rural loads will, in the near future, result in rural 110-kv networks with long distances and small specific load densities as peculiar features. The two-wire ground-return system seems to be rational under such conditions. If such a line is supplied by a low-power system or by an individual power station, both the short circuit current feeding a distant fault and the no-load current determined by a large capacitance of such a line will be close in magnitude to the normal load current; therefore, the conventional overcurrent protection of such transmission lines becomes impossible. On

SOV/112-57-5-10132

**Principles of a Relay Protective System for 110-kv Two-Wire Ground-Return . . . .**

the other hand, the use of a complicated distance-type protective system is noneconomical and requires highly qualified operating personnel. A current asymmetry relay operating on phase-current asymmetry exceeding a certain setting is the most rational for this case. The relay connected to each phase consists of (1) an operating unit passing the difference of currents of two phases and (2) a restraining unit passing the current of the third phase. Ampere-turns of the operating and restraining units are so proportioned that under normal conditions, the torques of the both units are balanced. If the current in the operating unit increases, the relay in the faulty phase operates while the relay in the sound phase is restrained from operation. Examination of the relay torques for the least favorable conditions -- a line of 400 km long supplied by a low-power station -- reveals that the relay made insensitive to the no-load asymmetrical currents will reliably operate on any asymmetrical fault on the transmission line. The relay operating conditions improve as the length of the line decreases.

T.B.Z.

Card 2/2

ZASLAVSKAYA, T.B., inzhener-elektrik; MESHCHERYAKOV, K.P., kandidat  
tekhnicheskikh nauk.

Principles of relay protection of 110 kv. lines of the  
"two-wire--ground" type for agriculture. Trudy Transp.-energ.  
inst.Zap.-Sib.fil.AN SSSR no.6:27-38 '56. (MLRA 10:2)

(Electric lines) (Electric relays)

8 (3)

SOV/112-57-5-10038

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 61 (USSR)

AUTHOR: Zaslavskaya, T. B.

TITLE: Minimum Degree of Compensation for a Long Electric Transmission Line  
(O minimal'noy stepeni kompensatsii dlinnoy linii elektroperedachi)

PERIODICAL: Tr. Transp.-energ. in-ta Zap.-Sib. fil. AS SSSR, 1956, Nr 6,  
pp 39-52

ABSTRACT: Specified normal operating conditions of an electric transmission line — principally stability requirements and maintenance of voltage within prescribed limits at any point of the line — restrict the line carrying capacity to a definite range  $P = f(l)$ . This range is presented for a line, similar to the Kuybyshev-Moscow transmission line, supplied by steam-turbine and hydro-turbine generators. It is pointed out that a variation of the transmission constant  $B_k$  in case of longitudinally-compensated line can be treated as a variation of the line wavelength with the line wave impedance remaining

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SOV/112-57-5-10038

# Minimum Degree of Compensation for a Long Electric Transmission Line

constant. The degree of compensation is determined as

$$K = \frac{B - B_k}{B} = 1 - \frac{\sin \alpha l_{ekv}}{\sin \alpha l}, \text{ where } B \text{ is the transmission constant of a non-}$$

compensated line,  $B_k$  is the transmission constant of a compensated line,  $\alpha l$  is the noncompensated-line wavelength,  $\alpha l_{ekv}$  is the compensated-line wavelength. It has been found that the minimum degree of compensation can be determined by reducing the equivalent compensated-line length to the limit length that corresponds to the transmission of the same power, under specified normal conditions, without compensating devices. The curves of the minimum degree of compensation plotted against the transmitted power and the transmission-line length are presented for the case of a longitudinal-compensation device, with or without reactors.

T.B.Z.

Card 2/2

ZASLAVSKAYA, T. B., <sup>U</sup>and Tech Sci -- (diss) "On the technical  
limit of the conducting capacity of <sup>a</sup> compensated ~~line~~ <sup>line</sup> of elec-  
tric transmission" Novosibirsk, 1957. 16 pp with graphs  
(Min of Higher Education, Tomsk Order of Labor Red Banner  
Polytechnic Inst im S. M. Kirov), 100 copies (KL, 52-57, 106)

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ZASLAVSKAYA, T.B.

ZASLAVSKAYA, T.B.

Technical limits of the transmitting capacity of compensated electric transmission lines. Izv.vost.fil. AN SSSR no.3:72-87 '57.  
(MLRA 10:9)

1. Zapadno-Sibirskiy filial Akademii nauk SSSR.  
(Electric lines)

ZASLAVSKAYA, T.B.

Determining the loading corresponding to the maximum efficiency  
coefficient of a long electric transmission line. Izv.vost.fil.  
AN SSSR no.7:71-75 '57. (MIRA 10:10)

1. Zapadno-Sibirekiy filial AN SSSR.  
(Electric lines)

AUTHOR: Zaslavskaya, T. B., Candidate of Technical SOV/105-58-9-13/34  
Sciences

TITLE: Calculating the Active Power Losses in a Long Line by Means  
of the Root-Mean Square Current (Raschet poteri aktivnoy  
moshchnosti v dlinnoy linii po srednekvadratichtnomu toku)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 58 - 59 (USSR)

ABSTRACT: For determining the active power losses in a long line, a  
simplified method was worked out in the Leningradskiy  
politekhniicheskiy institut (Leningrad Polytechnic Institute)  
and in the Gidroyekt. In this method, all special con-  
ditions of current distribution in a long line are  
considered by assuming a hypothetical time of operation  $\tau_m$   
that differs from the actual one. However, the results  
obtained by this method are too inaccurate, while the de-  
termination of  $\tau_m$  requires laborious preparatory work as  
well as the introduction of a number of additional  
approximations. In the report under review a method is  
given for determining the losses by means of the root-mean-  
square current. This method enables the power losses to be  
determined for a load at the end of the line in case the

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Calculating the Active Power Losses in a Long Line by SOV/105-58-9-13/34  
Means of the Root-Mean Square Current

line length, its cross section, and the number of lines per phase are known. Though not new in its concept until now, such a method of loss determining has been established neither in the USSR nor in other countries. Formulae (10) for the root-mean-square current, and (11) for the active power losses in the line, are derived. In (10) the first three terms give the root-mean-square current in the line without losses, while the last term takes into account the active resistance of the line. At a line length of 1200 to 3000 km, the last term amounts to 5 to 12% which cannot be neglected. Calculations with the use of (10) and (11) are very simple, the error not exceeding 2-4%. If compensating installations exist, the losses are found as the sum of the losses occurring in each of the line sections. There is 1 reference, 0 of which is Soviet.

ASSOCIATION: Transportno-energeticheskiy institut Zapadno-Sibirskogo  
filiala Akademii nauk SSSR (Institute for Power-Trans-  
mission of the Western Siberian Branch Establishment, AS USSR)

Card 2/3

ZASLAVSKAYA, T.B., kand. tekhn. nauk

Equivalent acceleration method for determining the operating time  
of a mechanism under the effect of a variable parameter. Izv. vys.  
ucheb. zav.; energ. 2 no.10:40-42 '59. (MIRA 13:3)

1. Novosibirskiy elektrotekhnicheskiy institut. Predstavlena  
kafedroy elektricheskikh stantsiy, setey i sistem.  
(Automatic control) (Electric relays)

ZASLAVSKAYA, T.B.

Engineering and economic indices of a 2,400 km. long electric  
power transmission line with longitudinal compensation. Trudy  
Transp.-energ. inst. Sib. otd. AN SSSR no.121-134 '60.

(MIRA 14:6)

(Electric power distribution)

KRYUKOV, A.A. (Moskva); ZASLAVSKAYA, T.B., kand.tekhn.nauk (Novosibirsk)

Tuned electric power transmission lines. Elektrichestvo no.10:  
90-91 0 '62. (MIRA 15:12)

(Electric lines--Overhead)  
(Electric power distribution)

ZASLAVSKAYA, T.B.

Efficient method for composing the characteristic equations of  
a system taking into account damper stages in the transverse  
axis of the generator. Trudy Transp.-energ. inst. Sib. otd. AN  
SSSR no.16:112-121 '63. (MIRA 16:11)



ZASLAVSKAYA, T.B., dotsent

Network for the automatic switching-in of an auxiliary power supply  
in electric substations. Vest. svyazi 22 no.7:12 J1 '62. (MIRA 15:7)

1. Kafedra energetiki predpriyatiy svyazi Novosibirskogo elektrotekhnicheskogo instituta svyazi.  
(Electric substations) (Electric power distribution)

1. KOLYANDR, L. Ya.; GRINBERG, A. M.; KOLTUN, R. M.; ZASLAVSKAYA, T. I.
2. USSR (600)
4. Xylene
7. Determination of constants of pure o-xylene and establishments of characteristics for the technical grade product. Zhur. prikl. khim. 26, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

OSTROVITYANOV, K.V., akademik; GATOVSKIY, L.M.; KUZ'MINOV, I.I.,  
doktor ekon. nauk; Prinsyali uchastiye: STAROVSKIY, V.N.;  
SAKOV, M.P.; BACHURIN, A.V.; ZASLAVSKAYA, T.I.; BOGOMOLOV,  
O.T.; RYMALOV, V.V.; RABINOVICH, M., red.; MUKHIN, Yu.,  
tekh. red.

[Economics; textbook] Politicheskaya ekonomiya; uchebnik.  
4., perer. i dop. izd. Moskva, Gospolitizdat, 1962. 702 p.  
(MIRA 15:11)

1. Akademiya nauk SSSR. Institut ekonomiki. 2. Chlen-  
korrespondent Akademii nauk SSSR (for Gatovskiy, Starovskiy).  
(Economics)

LAPTEV, I.D.; TERYAYEVA, A.P.; SAPIL'NIKOV, N.G.; CHENTSOV, R.Ye.  
[deceased]; SEPP, Ya.P.; SUVOROVA, L.I.; ZASLAVSKAYA, T.I.;  
GREKOVA, A.I.; TONKOVICH, V.S.; IBRAGIMOV, A.I.; KOTSIUBA,  
T.Ya.; KURYLEV, V.M.; KOVALEVSKIY, G.T.; KALNINSH, A.A.  
[Kalnins, A.]; SIDOROVA, M.I.; MALISHAUSKAS, V.I.  
[Malisauskas, V.]; PASECHNIK, P.P.; BUGAREVICH, V.S.;  
KARNAUKHOVA, Ye.I.; AREF'YEV, T.I.; KAZAKOV, I.G.;  
GUMOVSKIY, I.A.; SEMIN, S.I., red.; LINKURIA, N.I., red.;  
TSITKO, I.A., red.; VOLKOVA, V.V., tekhn. red.

[Material incentives for developing the collective farm produc-  
tion] Material'noe stimulirovanie razvitiya kolkhoznogo pro-  
izvodstva. Moskva, Izd-vo AN SSSR, 1963. 326 p.

(MIRA 16:12)

1. Akademiya nauk SSSR. Institut ekonomiki.
2. Institut eko-  
nomiki AN SSSR (for Laptev, Teryayeva, Suvorova, Zaslavskaya,  
Sidorova, Karnaukhova).
3. Sredneaziatskiy gosudarstvennyy uni-  
versitet (for Sapil'nikov).
4. Komi filial AN SSSR (for Chentsov).
5. Institut ekonomiki AN Estonskoy SSR (for Sepp).
6. Bashkirskiy  
filial AN SSSR (for Grekova).
7. Institut ekonomiki AN Bolo-  
russkoy SSR (for Tonkovich, Kovalevskiy).
8. Institut ekonomiki  
AN Uzbekskoy SSR (for Ibragimov).

(Continued on next card)

LAPTEV, I.D.--- (continued). Card 2.

9. Institut ekonomiki AN Ukr.SSR (for Kotsyuba, Pasechnik).
  10. Belorusskiy institut ekonomiki i organizatsii sel'sko-khozyaystvennogo proizvodstva (for Bugarevich).
  11. Vsesoyuznyy institut sakharnoy svekly (for Aref'yev).
  12. Institut ekonomiki AN Kirgizskoy SSR (for Kazakov).
  13. Rabotnik Tsentral'nogo komiteta Kommunisticheskoy partii Moldavskoy SSR (for Gurovskiy).
  14. Kuybyshevskiy planovyy institut (for Kurylov).
- (Collective farms--Income distribution)

KOLYANDR, L.Ya.; GRIMBERG, A.M.; KOLTUN, R.M.; ZASLAVSKAYA, T.I.

Determination of constants of pure o-xylene and the development of indexes  
for characterization of commercial product. Zhur. Priklad. Khim. 26,438-  
42 '53. (MLRA 6:4)

(CA 47 no.19:9703 '53)

1. Kharkov Coke-Chem. Plant.

ZASLAVSKAYA, Tat'yana Ivanovna; BOLGOV, A.V., otv.red.; NEMESHAYEV,  
I.P., red.izd-va; SUSHKOVA, L.A., tekhn.red,

[Present-day collective farm economy] Sovremennaya ekonomika  
kolkhozov. Moskva, Izd-vo Akad.nauk SSSR, 1960. 113 p.  
(Collective farms) (MIRA 13:8)

KARNAUKHOVA, Ye.S., doktor ekonom.nauk, red.; KOTOV, G.G., red.;  
OBOLENSKIY, K.P., red.; ZASLAVSKAYA, T.I., red.; FREYDMAN, S.M.,  
red.; FEDOTOVA, A.F., tekhn.red.

[Labor productivity in socialist agriculture] Proizvoditel'nost'  
truda v sotsialisticheskoy sel'skoy khoziaistve; voprosy metodo-  
logii i metodiki. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 422 p.  
(MIRA 13:3)

1. Akademiya nauk SSSR. Institut ekonomiki. 2. Institut ekonomiki  
AN SSSR (for Karnaukhova).  
(Agriculture--Labor productivity)



ZASLAVSKAYA, T.I., kand.ekon.nauk, KOTOV, G.G., doktor ekon.nauk, red.;  
POTAPOV, Kh.Ye., red.; GHRASIMOVA, Ye.U. tekhn.red.

[Principle of material interest and wages on collective farms]  
Printsip material'noi zainteresovannosti i oplata truda v kolkhozakh.  
Pod red. G.G. Kotova. Moskva, Gosplanizdat, 1958. 161 p. (MIRA 11:9)  
(Wages)  
(Collective farms)

I. 47036-66 EWT(d)/EWT(m)/EWP(e) WH

ACC NR: AP6030177

SOURCE CODE: UR/0237/66/000/008/0022/0024

AUTHOR: Adrianova, I. I.; Zaslavskaya, V. R.; Popov, Yu. V.

ORG: none

TITLE: Broadband interference light modulator with piezoelectric-ceramic mirrors

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 8, 1966, 22-24

TOPIC TAGS: interference light modulator, laser application, piezoelectric ceramic/  
TsTS-19 ceramic

ABSTRACT: This is a continuation of an earlier theoretical and experimental study (Optika i spektroskopiya v. 9, 1960, no. 4, p. 501) of the modulation of the light beam by an interference modulator. The present article describes a modulator whose bandwidth has been increased to 5 - 7 MHz (compared with ~1 MHz earlier) by replacing the piezoelectric crystal mirrors with polarized piezoelectric ceramics (TsTS-19). The construction of the interferometer, which is similar to the standard Twyman-Green design, is described. The instrument was tested both under continuous and pulsed conditions in modulation of light from an He-Ne laser (632.8 nm). The obtained static characteristic is such that pulsed modulation with approximate depth of 80% can be obtained at control pulse amplitude 150 - 170 v. When 1-μsec pulses are applied to both mirrors simultaneously in such a way that they are moved in opposite directions, a modulation depth of 85% can be attained at 130 volts. The modulator power consumption is less than one watt and the optical losses reached 70%, owing to the poor

UDC: 621.378.33: 621.376

Card 1/2

L 47036-66

ACC NR: AF6030177

quality of the reflecting surfaces of the piezoelectric ceramics used. Further decrease in the dimensions of the ceramics could increase the bandwidth. The authors thank Z. I. Rogozovskaya and her co-workers for help in preparing the piezoelectric-ceramic mirrors. Orig. art. has: 4 figures. [02]

SUB CODE: 20, 11/09 SUBM DATE: 24 Jan 66/ ORIG REF: 003/ OTH REF: 001  
ATD PRESS: 5088

Card 2/2

GORGIIYEV, T.B., dotsent; KETKOV, G.F.; ZASLAVSKAYA, Ye.S.

Autovaccine therapy in treating children with septicopyemia.  
Khirurgiia 38 no.12:57-59 D '62. (MIRA 17:6)

1. Iz kliniki detskoy khirurgii ( zav.- prof. A.D. Khristich)  
Dnepropetrovskogo meditsinskogo instituta i iz Dnepropetrovskogo  
instituta epidemiologii, mikrobiologii i gigiyeny.

ZASLAVSKIY, A.; PETROV. A.

New kinds of equipment for department stores. Sov.torg. no.10:36-37  
0.157. (MIRA 10:11)

(Store fixtures)

ZASLAVSKIY, A., ENGR-MAJ

PA 40/49116

<p>USBR/Aeronautics Flight Training Bombing</p> <p>"Methods of Bomber Training," Engr-Maj A. Zaslavskiy, 3 pp</p> <p>"Vent Vozdush Flota" No 2</p> <p>Describes factors in training course for bomber planes which should be stressed. Great importance is attached to action of drift and wind force. Does not minimize necessity for properly trained staff officers. Criticizes fact that crew members of the lead plane are always best trained.</p> <p>PDB</p> <p>USBR/Aeronautics (Contd)</p> <p>Recommends that crews of all planes receive similar training.</p> <p>PDB</p>	<p>Feb 49</p> <p>40/49116</p> <p>Feb 49</p> <p>40/49116</p>
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ZASLAVSKIY, MAJ. A.

"Review of 'Basic Constructions for Bomb Sights' by I. Ye. Efros," Vest. Vozdush.

Flota., No. 4, 1948;

"Methods of Bomber Training," ibid., No. 2, 1949.

ZASLAVSKIY, A.

PA 68T12

USSR/Aeronautics, Military  
Bomb Sights

Apr 1948

"Review of 'Basic Constructions for Bomb Sights' by  
I. Ye. Efros," Maj A. Zaslavskiy, 2 pp

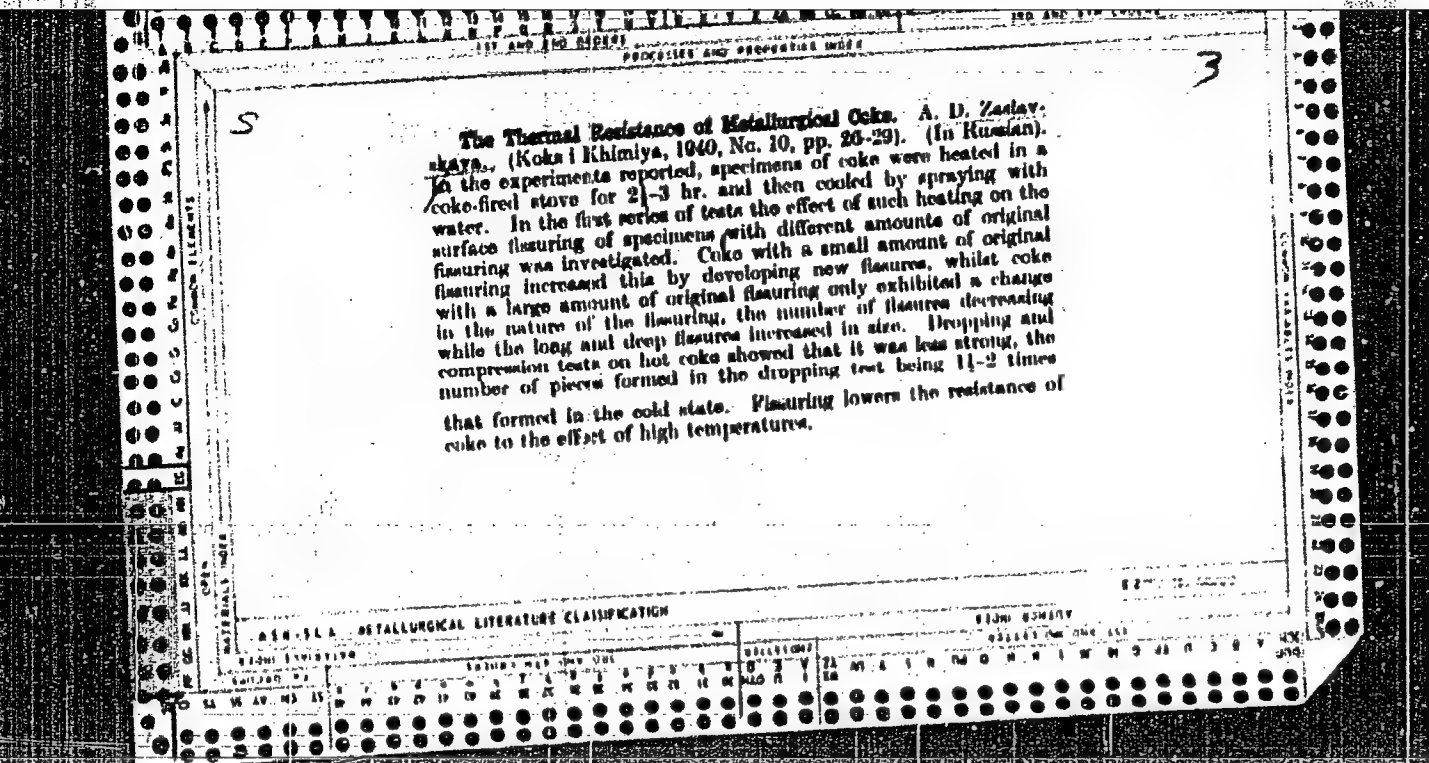
"Vest Vozdushn Flota" No 4 (350)

Second printing of book contains nine chapters.  
Weakness of author seems to be that he has attempted  
to treat a highly technical subject as popular sci-  
ence. There are 253 illustrations on 317 pages, but  
they lack descriptive explanations.

FDB

68T12





ZASLAWSKIJ, A. I.

"Solubilité conjointe des nitrates d'aluminium, de sodium, de potassium et de fer dans l'eau en présence de trique. Comm. II." Zaslavskij, A. I. et Ettinguere, I. L. (p. 2410)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii). 1937, Volume 7, No. 18.

18

*Cu*

Barium chloride and hydrogen sulfide. G. I. Volodovich and A. I. Zaslavskii. Russ. 40,910, May 31, 1946. BaS is treated with a soln. of  $\text{CaCl}_2$  in an amt. sufficient for the conversion into  $\text{BaCl}_2$  of only 50% of BaS; later  $\text{CO}_2$  is blown through the soln. upon the addn. of the other part of  $\text{BaCl}_2$ .

ASB-154 METALLURGICAL LITERATURE CLASSIFICATION

30

Simultaneous solubility of aluminum, sodium, potassium, and ferric nitrates in aqueous nitric acid. I. A. I. ZARLAVSKI and I. L. ERTHOVEN (with E. A. EKHIOVA) (J. Gen. Chem. Russ., 1937, 7, 1948—1953).—Compound formation is not observed in the system  $Al(NO_3)_3-NaNO_3-KNO_3-H_2O$ , at 0—60°. The solid phases are  $Al(NO_3)_3 \cdot 9H_2O$ ,  $KNO_3$ , and  $NaNO_3$ . R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED	INDEXED	SERIALIZED	FILED	DATE	BY	REMARKS

18

Simultaneous preparation of barium chloride, magnesium hydride and hydrogen sulfide. A. J. Zaslavskii, G. I. Votolovich and S. S. Shtal. Russ. Khim., Aug 31, 1917. A soln. of  $Ba(SH)_2$  is treated with a soln. of  $MgCl_2$  with heating.

ASSOCIATE METALLURGICAL LITERATURE CLASSIFICATION

BC

B-III-1

Production of potassium sulphate from potassium chlorate and nitric acid. A. I. ZARAYAN, E. B. SOYUN, and L. A. BOGOMOLOVA (U.S.S.R.), 1966, *Chem. Abstr.* 61:587. Equilibrium between  $K_2SO_4$  and  $KNO_3$  has been studied at 25, 35, and 45°C. The solubility of crystals of  $K_2SO_4$  and  $KNO_3$  were determined. The possibility of producing  $K_2SO_4$  by exchange of  $KCl$  and  $Na_2SO_4$  has been investigated; the yield increases from 11.1% at 75°C to 22.0% at 85°C.

ASACLA METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

EXACT DATE

EXACT DATE

EXACT DATE

Production of potassium sulfate fertilizers from potassium chloride and mirabilite. A. I. Zaslavskiy, S. S. Samoilov and L. A. Sokolova. *Russ. J. Chem. Ind.*, 1938, No. 1, 17-20 (English 67-8). -- The solv. isotherms of the system  $K_2SO_4$ - $NaCl$ - $H_2O$  at  $-6^\circ$ ,  $25^\circ$  and  $75^\circ$  were investigated. The curvature of the crystn. fields of  $K_2SO_4$  and glaserite was determined at the same temps. by the method of isothermal diagram sections. In the isotherm  $25^\circ$ , the presence of a considerable glaserite field was established. The compns. of glaserite isolated from different portions of its field in the quaternary system at  $25^\circ$  and  $75^\circ$  were detd. The max. formation of the solid soln. of  $Na_2SO_4$  in glaserite corresponds to the field with a higher  $Na/K$  ratio with a min. water content (at the boundary of the  $NaCl$  and glaserite fields). The data are tabulated and plotted. The amts. of pure  $K_2SO_4$  obtained by the exchange of  $KCl$  and  $Na_2SO_4$  10H $_2$ O, increase with a decrease of temp.; thus, at  $75^\circ$  21.1% of  $K_2SO_4$  was produced, at  $25^\circ$  30.2% and at  $-6^\circ$  38.0%. Glaserite formed as the result of the above exchange, within 30 min., contained an excess of  $Na_2SO_4$  as a solid soln. Its  $K_2SO_4$  content was about 76%

as compared with theoretical 78.6%. The max. yield (81.5%) of K in the form of glaserite was observed at  $10^\circ$ . The four 4-cycle schemes of treatment of  $KCl$  and  $Na_2SO_4$  10H $_2$ O based on a new principle of the selection of final isotherm allowing a considerable advantage over the usual schemes, are described. About 8 patent and 7 literature references. A. A. Podgorny

CA

Mutual solubility of aluminum, sodium, potassium and iron nitrates in water in the presence of nitric acid. III. A. I. Zaslavskii and Ya. A. Ravdin. J. Gen. Chem. (U. S. S. R.) 9, 1473-8 (1938); cf. C. A. 30, 1044. The soly. isotherms of the system  $\text{Al}(\text{NO}_3)_3\text{-Fe}(\text{NO}_3)_3$  at 0°, 20° and 40° were studied. The true equil. between the solid and liquid phases was effected by soln. of the salts at higher temps. and crystn., with vigorous stirring, at the given temps. The compn. of the solid phase was studied by Schreinemaker's method and by detn. of ds., n and  $\mu$  of the mixed crystals. The tabulated and plotted results show the formation of continuous series of mixed crystals of  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$  and  $\text{Fe}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$  with unlimited soly. at all the temps. Chas. Blanc investigated.

ASB.514 METALLURGICAL LITERATURE CLASSIFICATION



ZASLAVSKIY, A. I.; RAVDIN, Ya. I.

"The Co-solubility of Nitrates of Aluminum, Sodium, Potassium and Iron in Water in the Presence of Nitric Acid. Part III", Zhur. Obshch. Khim., 9, No. 16, 1939. State Institute of Applied Chemistry. Received 28 Feb 1939.

Report U-1614, 3 Jan 1952.

18

*Handwritten: 18*

The production of some barium salts. A. I. Zaslavskii. *Chem. Ind. USSR*, 1948, No. 2, 91. — The method of producing BaCl<sub>2</sub> by carbonating BaS and CaCl<sub>2</sub> solns. has been modified: (1) The Ca(OH)<sub>2</sub> formed by mixing BaS and CaCl<sub>2</sub> solns. is sepd., and (2) the soln. is carbonated: CaCl<sub>2</sub> + Ba(SH)<sub>2</sub> + H<sub>2</sub>O + CO<sub>2</sub> → BaCl<sub>2</sub> + CaCO<sub>3</sub> + 2H<sub>2</sub>S. This modification decreases by 50% the consumption of CO<sub>2</sub>, avoids losses of BaCl<sub>2</sub>, and produces more concd. BaCl<sub>2</sub> and Ba(SH)<sub>2</sub> solns. The reaction BaS + MgCl<sub>2</sub> + 2H<sub>2</sub>O → BaCl<sub>2</sub> + Mg(OH)<sub>2</sub> + H<sub>2</sub>S was investigated for the production of pure H<sub>2</sub>S. A preliminary soln. of the BaS soln. with H<sub>2</sub>S and gradual heating of the soln. with MgCl<sub>2</sub> facilitate slow crystal. and better filtration of the Mg(OH)<sub>2</sub>. Production of BaCl<sub>2</sub> and other Ba salts from HCl and BaS melt was developed and optimum temp. conditions and quant. correlation of the components were detd. BaSiF<sub>6</sub> can be produced by const. mixing of BaS soln. with H<sub>2</sub>SiF<sub>6</sub>, a waste product of superphosphate manuf. Production of BaCO<sub>3</sub> and BaS comprised pptn. from 15-18% soda soln. and 11-16% BaS soln. heated to 80°.

W. R. Heon

ASA-ILA METALLURGICAL LITERATURE CLASSIFICATION										EDUC. NUMBER									
100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000										100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000									

ZASLAVSKIY, A. K.; RAVDIN, Ya. A.

"The Co-solubility of Nitration of Aluminum, Sodium, Potassium and Iron in Water in the Presence of Nitric Acid. Part III", Zhur. Obshch. Khim., 9, No. 15, 1939. State Institute of Applied Chemistry. Rec'd 28 Feb 1939.

Report U-1614, 3 Jan 1952.

Crystalline structure of 4-methyl-5-phenyl-1,2-dithiol-  
3-thione. A. I. Zaslavskii and Yu. D. Kondrashov,  
*Zhur. Obshchei Khim. (J. Gen. Chem.)* 19, 1144-5/  
(1949).—See *C.A.* 42, 7127f. G. M. Kosolapoff

PA 64/49T16

ZASLAVSKIY, A. I.

USSR/Chemistry - Crystals  
Chemistry - Crystal Lattices

Jun 49

The Crystalline Structure of 4-Methyl-5-phenyl-  
1, 2-dithiol-3-thione, A. I. Zaslavskiy,  
Yu. D. Kondratenov, I-Ray Lab, Chem Inst, Lenin-  
grad, U, 7 3/4 pp

"Zhur Obshch Khim" Vol XII, No 6 - p. 1144-52

This crystal belongs to the alphenoidal class  
of rhombic symmetry  $D_2(V)$  - 222. True class  $D_{2h}$ .  
Ratio of axes 1.6202: 1 : 0.8610. Periods of  
identity of the elementary nucleus:  $a = 14.64 \pm$   
 $0.04 \text{ \AA}$ ,  $b = 9.05 \pm 0.02 \text{ \AA}$ ,  $c = 7.69 \pm 0.02 \text{ \AA}$ .  
Four molecules are in the nucleus. Space group  
64/49T16

USSR/Chemistry - Crystals (contd) Jun 49

is  $P 2_12_12_1(D^4_2)$ . In the molecule, facets of  
benzene and thiolic rings incline perpendicularly  
to each other. Crystal lattice is composed of two  
layers, containing in the facet of the nucleus  
two molecules. In the layer of the molecule in  
the facet  $ac$ , the linear axis of the molecule in-  
clines at an angle of  $36^\circ$  to the  $ac$  axis. The facet  
of the thiolic ring is found in the facet  $ac$ .  
Submitted 10 Feb 48.

64/49T16

c A

2

New modification of lead dioxide and the texture of anodic deposits. A. I. Iglatzskii, Yu. D. Kondrashov, and N. N. Tolkachov. *Doklady Akad. Nauk S.S.S.R.*, 78, 840-81 (1960).—The common tetragonal rutile-rutile-type

form of  $PbO_2$  (henceforth to be designated as  $\beta$ - $PbO_2$ , in analogy with pyrochroite  $\beta$ - $MnO_2$ ) was obtained by chem. methods of prepn, such as decompos. of  $PbO_2$  with  $(NH_4)_2CO_3$  or oxidation of  $PbCO_3$  in alk. soln. with  $Cl_2$ , and by electrolysis of acid solns. of  $Pb(NO_3)_2$  from  $1/10$  N to 2 N at c.d. 0.0001–0.1 amp./sq. cm. Deposits with x-ray patterns markedly different with respect to the relative intensities of the lines were obtained from neutral solns. of  $Pb(NO_3)_2$ ,  $1/10$  N at c.d. 0.0001–0.008 amp./sq. cm. Electrolysis of  $1/10$  N solns. of  $Pb(OAc)_2$  at c.d. 0.001, and of solns. of  $Pb(ONa)_2$  in NaOH in a wide range of concns. and c.d., gave  $PbO_2$  deposits with a very small no. of x-ray lines and a high degree of orientation. Fine powders of these deposits proved, in x-ray diffraction, to be a new form of  $PbO_2$ , designated as  $\alpha$ - $PbO_2$ , orthorhombic, 4 mols. in the elementary cell,  $a = 4.939$ ,  $b = 8.939$ ,  $c = 5.486$  Å., space group  $D_{2h}^{16} = Pbam$ . The pattern is an alternation in one layer of zigzag-shaped chains of populated and of empty octahedrons with a link length of 2 octahedrons. The packing is two-layer, hexagonal. Each O octahedron has 2 common edges with its neighbors. The cell contains 4 Pb atoms  $0, y, 1/4$ , with  $y = 0.178$ , and 8 O atoms with the coordinates  $x_1 = 0.23$ ,  $y_1 = 0.43$ ,  $z_1 = 0.44$ . The distance Pb–O = 2.16–2.22 Å.; the length of the common edge of the octahedron = 2.16 Å. This structure of  $\alpha$ - $PbO_2$  is close to that of the orthorhombic modification of columbite ( $Pb-Cb_2O_6$ ) with the octahedrons populated with one kind of atom.

N. Tolkachov

C. A.  
1951

General and Physical Chemistry  
2.

Structure of the modifications of manganese dioxide. Yu. D. Kondrashov and A. I. Zhdanovskii. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 18, 179-85 (1951).—X-ray analysis shows 7 different types of structure.  $\beta$ - $\text{MnO}_2$  (pyrochroite) obtained from  $\text{Mn}(\text{NO}_3)_2$  by thermal decomposition, has  $a = 4.388 \pm 0.001$  Å,  $c = 2.858 \pm 0.001$  Å. The parameter of O atoms  $z = 0.803 \pm 0.004$ , and the bonds are mainly ionic.  $\epsilon$ - $\text{MnO}_2$  (cryptomelan) obtained by slow oxidation of  $\text{MnSO}_4$  with  $\text{KClO}_4$  in  $\text{H}_2\text{SO}_4 + \text{K}_2\text{SO}_4$  has  $a = 9.815 \pm 0.001$  Å,  $c = 2.847 \pm 0.001$  and the space group  $C_{2h}^2 - P_{21}^2$ . The ion coordinates and interionic distances in this structure are indicated. The structure resembles a zeolite structure, which explains ion-exchange properties of this compd.  $\gamma$ - $\text{MnO}_2$  (rammedelite) obtained by boiling of pptd.  $\text{MnO}_2$  with 3*N*  $\text{HNO}_3$  has  $a = 9.22 \pm 0.01$  Å,  $b = 4.40 \pm 0.01$ ,  $c = 2.850 \pm 0.005$  Å, and belongs to group  $D_{2h}^2 - P_{21}^2$ . Its coordinates and interat. distances are indicated. Several structures have  $\gamma$ -type diagrams. One of these designated by the author as  $\alpha$ - $\text{MnO}_2$  and obtained by oxidation of  $\text{Mn}(\text{NO}_3)_2$  in 2*N*  $\text{HNO}_3$  by  $\text{KClO}_4$  has  $a = 2.785 \pm 0.001$  Å,  $b = 4.412 \pm 0.001$  Å, and belongs to space group  $D_{2h}^2 - C_{2h}^2$ . Half-amorphous  $\text{MnO}_2$  contg. 15-40%  $\text{H}_2\text{O}$  was also investigated. S. Pakawer

ZASLAVKIY, A. I.

PA 187191

USSR/Physics - X-Ray Analysis Mar/Apr 51

"The Structure of the Modifications of Manganese Dioxide," Yu. D. Kondrashev, A. I. Zaslavkiy, State Inst of Applied Chem

"Iz Ak Nauk SSSR, Ser Fiz" Vol XV, No 2, pp 179-185

This lecture is devoted to study of the structure of modifications of  $MnO_2$  obtained in pure form by synthetic means and identical to natural modifications. The following are studied: beta-modification of  $MnO_2$  (pyrolusite), alpha- $MnO_2$  (cryptomelan), gamma-modification of  $MnO_2$  (hausmannite),

LC 187191

USSR/Physics - X-Ray Analysis (Contd) Mar/Apr 51

and hemi-amorphous modification of  $MnO_2$ . Give tables and figures of the intra-ionic distances between Mn and O and between O and O; also steric diagrams. The lecture was delivered at 3d All-Union Conference on Use of X-rays in Study of Materials held 19-24 Jun 50 in Leningrad.

LC

187191



ZASLAVSKIY, A.I.

USSR/Chemistry - Lead Dioxide

May 52

"Structure of the alpha-Modification of Lead Dioxide,"  
A. I. Zaslavskiy, S. S. Tolkachev, Leningrad Order  
of Lenin State U imeni A. A. Zhdanov

"Zhur Fiz Khim" Vol XXVI, No 5, pp 743-752

Investigated the structure and anodic texture of a  
new modification of  $PbO_2$ , alpha lead dioxide.

219T11

USSR.

12

*unreliable*

ZASLAVSKIY, A.I.; TOLKACHEV, S.S.

Structure of the rhombic modification of lead dioxide. Uch. zap.  
Len.un. 163:186-205 '53. (MLRA 9:6)

1.Kafedra analiticheskoy khimii IGOLU.  
(Lead oxides) (Crystallochemistry)

ZASLAVSKIY, A.I.; ZVINCHUK, R.A.; TUTOV, A.G.

X-ray study of the polymorphism of  $Ta_2O_5$ . Dokl. AN SSSR 104 no.3:  
409-411 S '55. (MLRA 9:2)

Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.  
Predstavleno akademikom N.V. Belevym.  
(Tantalum oxides) (Crystallography)

ZASLAVSKIY, A.I.

Category : USSR/Solid State Physics - Structural Crystallography

E-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3693

Author : Zaslavskiy, A.I., Rogachev, D.L.

Title : Determination of the Laue Class and Orientation of an Unfaced Crystal  
from One Photograph of the Stationary Crystal in Polychromatic Radiation

Orig Pub : Kristallografiya, 1956, 1, No 2, 159-164

Abstract : The determination of the Laue class and of the orientation of an unfaced crystal is usually performed by taking three photographs in a flat cassette. This article proposes that this determination be performed for crystals giving a rich interference pattern by using a single photograph in a cylindrical cassette. The spherical coordinates of the reflexes and of the points of intersection of the zonal curves are determined with the aid of a grid of curves  $\rho = \text{const}$  and  $\varphi = \text{const}$ . The data obtained are plotted directly on a Fedorov sphere, thereby simplifying the work and reducing the time of determination.

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ARIYA, S.M.; ZASLAVSKIY, A.I.; MATVEYEVA, I.I.

Chemistry of the compounds of a variable composition. Part 4.  
System tantalum -- selenium. Zhur.ob.khim. 26 no.9:2373-2375  
S '56. (MLRA 9:11)

1. Leningradskiy gosudarstvennyy universitet.  
(Tantalum) (Selenium)

SHEFFEL', I.T.; ZASLAVSKIY, A.I.; KURLINA, Ye.V.; TEKSTER-PROSKURYAKOVA, G.N.

Electric properties and structure of complex oxide semiconductors,  
Fiz. tver. tela 1 no.2:227-241 F '59. (MIRA 12:5)  
(Semiconductors)

86442

24,7600 (1035,1043,1158)

S/181/60/002/011/029/042  
B006/B060

AUTHORS: Zaslavskiy, A. I., Sergeyeva, V. M., and Smirnov, I. A.

TITLE: Heat Conductivity of Alpha and Beta Modifications of  $\text{In}_2\text{Te}_3$

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 11, pp. 2885-2893

TEXT: This is a report on measurements made on the heat conductivity  $\kappa_{\text{lat}}$  of the crystal lattice of  $\beta\text{-In}_2\text{Te}_3$ , which, due to the strong scattering of phonons on statistically distributed vacancies in the indium sublattice, is abnormally small as compared with  $\kappa_{\text{lat}}$  of adjacent compounds in the isoelectronic series. X-ray structural analyses were made in parallel to  $\kappa$  measurements. The X-ray phase analysis was performed with a diffractometer of type YPC-50-M (URS-50-I), and a device described in Ref. 9 was used for  $\kappa$  measurements in the range 80-400°K. The preparation of  $\alpha$  and  $\beta$ -modifications of the specimens is accurately described. Measurement results are illustrated in diagrams. Fig. 1 shows  $\kappa_{\text{lat}}(T)$  for cast and pressed specimens subject to different heat treatments (respective data

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Heat Conductivity of Alpha and Beta  
Modifications of  $\text{In}_2\text{Te}_3$

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are given in Table 2).  $\kappa_{\text{lat}}$  decreases with rising temperature, even exponentially in part. The least decrease (in fact, almost a constancy) was found in a cast coarse-crystalline specimen obtained by allowing the melt to cool down to 600-580°C. Fig. 2 shows the diffractometric intensity curves for these specimens. Fig. 3 shows further  $\kappa(T)$  curves with an exponential course. The authors consider the cubic cell of  $\text{In}_2\text{Se}_3$  with 4 Te atoms, 8/3 In atoms and 4/3 empty sites, and offer several simple relations among the characteristic parameters. The proportionality factor  $\lambda$  is estimated (the scattering cross section  $S$  being related by relation  $S = S_{\text{vac}} \lambda$  to the vacancy cross section;  $S = a^2 \pi^{1/2} \lambda / 4$ ,  $a$  being the lattice constant) for the temperatures 100 and 300°K. The calculation is made by the formula  $\lambda = a C_v \alpha V_1 / \pi^{1/2} \kappa$ ,  $V_1 = a^3 / 8$ ,  $\alpha \approx 1/5$ ;  $\kappa_{\text{lat}}$  was found for both these temperatures to be  $1.88 \cdot 10^{-3} \text{ cal/cm} \cdot \text{sec} \cdot \text{deg}$ , and  $1.66 \cdot 10^{-3} \text{ cal/cm} \cdot \text{sec} \cdot \text{deg}$ , respectively. Hence,  $\lambda_{100^\circ\text{K}} = 0.256$  and  $\lambda_{300^\circ\text{K}} = 0.360$ . The results obtained lead to the following conclusions: the heat conductivity of the

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Heat Conductivity of Alpha and Beta  
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high-temperature modification  $\beta\text{-In}_2\text{Te}_3$  is very small and almost independent of temperature. This abnormally small value is explained by photon scattering on the statistically distributed vacancies in the indium sublattice. The heat conductivity of  $\text{In}_2\text{Se}_3$  increases with the ordering of the lattice ( $\alpha\text{-In}_2\text{Se}_3$  has  $\kappa_{\text{lat}} = 2.68 \cdot 10^{-3} \text{ cal/cm} \cdot \text{sec} \cdot \text{deg}$  at  $300^\circ\text{K}$  and rapidly increases with dropping temperatures). Results are in good agreement with X-ray structural analysis results. The formation of the  $\alpha$ -modification with heat treatment depends on the crystal size, as it is the slower, the larger the crystals. The authors thank V. P. Zhuze for having posed the problem and for interest displayed, and Ye.D. Devyatkov for her remarks, B. Ya. Moyzhes for discussions. A. V. Ioffe, Ilisavskiy, and Petrov are mentioned. There are 3 figures, 3 tables, and 11 references: 9 Soviet, 1 US, and 1 Japanese.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

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Heat Conductivity of Alpha and Beta  
Modifications of  $\text{In}_2\text{Te}_3$

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SUBMITTED: July 15, 1960

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86440

24,7300 (1035, 1043, 1145)

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B006/B060

AUTHORS: Zaslavskiy, A. I. and Sergeyeva, V. M.

TITLE: Polymorphism of  $\text{In}_2\text{Te}_3$

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 11, pp. 2872-2880

TEXT: This is in continuation of the paper published on p. 2858 of the present issue, where a report has been given on the electrical and thermal properties of  $\text{In}_2\text{Te}_3$ . In the article considered here the authors report on their systematic studies conducted on the phase compositions of polycrystalline specimens, prepared under different conditions of synthesis and heat treatment, and on studies of the heating and cooling curves, determinations of specific gravity, as well as X-ray analyses of monocystals.  $\text{In}_2\text{Se}_3$  was synthesized from high-purity elementary components by fusion (700-750°C) in quartz ampoules. The indium impurity was < 0.001%. The specific gravity of the  $\alpha$ - and  $\beta$ -modification was pycnometrically determined in toluene and the following values were obtained:  $d_p^{20^\circ\text{C}}$

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Polymorphism of  $\text{In}_2\text{Te}_3$ S/181/60/002/011/027/042  
B006/B060

$\rho = 5.73 \pm 0.005 \text{ g/cm}^3$ ;  $\rho_{\alpha}^{20^\circ\text{C}} = 5.79 \pm 0.005 \text{ g/cm}^3$ . The results (interplanar spacings and periods of identity) of X-ray analyses are compiled in a table. A detailed description is given of structural analyses made by Laue diagrams, and the atomic arrangement (72 In and 108 Te per elementary cell) is discussed. Fig. 7 shows cross sections through an elementary cell of  $\alpha\text{-In}_2\text{Te}_3$  in perpendicular to [111]. Investigation results are summarized as follows: The structural transformation  $\alpha\text{-In}_2\text{Te}_3 \rightleftharpoons \beta\text{-In}_2\text{Te}_3$  was studied. The exothermic transition  $\beta\text{-In}_2\text{Te}_3 \rightarrow \alpha\text{-In}_2\text{Te}_3$  is a phase transformation of first kind which is accompanied by a density increase of  $5.73 \text{ g/cm}^3$  over  $5.79 \text{ g/cm}^3$  and which takes place between 620 and 520°C. The high-temperature form of  $\beta\text{-In}_2\text{Te}_3$  has a ZnS-type structure with statistically distributed vacancies. The low-temperature form of  $\alpha\text{-In}_2\text{Te}_3$  has a cubic face-centered lattice with  $a = 18.50 \text{ \AA}$  and belongs to the space group  $F\bar{4}3m$ . The structure is based on a 9-layered cubic packing with three ordering principles. Results obtained explain the divergence of data supplied by Hahn and Inuzuka by the fact that the former observed

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the high-temperature form and the latter, the low-temperature form of  $\text{In}_2\text{Te}_3$ . The authors thank V. P. Zhuze for having posed the problem and for his interest, A. M. Yelistratov for his interest, and senior laboratory assistant T. B. Zhukova for her assistance in the experiments. There are 8 figures, 2 tables, and 8 references: 3 Soviet, 1 US, 2 German, and 1 Japanese.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: July 15, 1960

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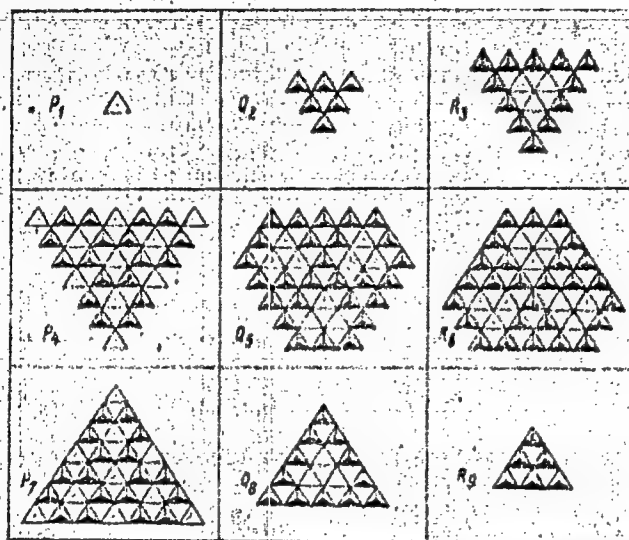


Fig. 7

24.7900

09640  
S/020/60/135/004/013/037  
B019/B077

AUTHOR: Zaslavskiy, A. I., and Tutov, A. G.

TITLE: Structure of a New Antiferromagnetic Compound,  $\text{BiFeO}_3$

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 4,  
pp. 815 - 817

TEXT: The antiferromagnetic compound  $\text{BiFeO}_3$ , which is described in this paper was produced along with other compounds at the Institute of Semiconductors of the AS USSR. Conventional ceramic techniques were applied for the production. Preliminary firings were carried out at  $750^\circ$  and  $800^\circ$  C, respectively specimens in powder form showed that the  $\text{BiFeO}_3$  unit cell is nearly cubic and has a slight rhombohedral distortion. Detailed structural and crystallographic data as obtained from these powder patterns are tabulated and discussed. The structure of  $\text{BiFeO}_3$  is assumed to be of perovskite type. The authors thank Ye. S. Sher and L. L. Vasil'yeva for supplying the preparation, and Professor G. A. Smolenskiy for his interest in this work.

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Structure of a New Antiferromagnetic  
Compound,  $\text{BiFeO}_3$

S/020/60/135/004/013/037  
B019/B077

N. V. Belov and G. B. Bokiy are mentioned. There are 1 figure, 2 tables,  
and 5 references: 1 Soviet.

ASSOCIATION: Institut poluprovodnikov Akademii nauk SSSR (Institute of  
Semiconductors, Academy of Sciences USSR)

PRESENTED: June 20, 1960, by A. F. Ioffe, Academician

SUBMITTED: June 20, 1960

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9/020/60/135/004/013/037  
B019/B077

Межплоскостные расстояния и интенсивности порошковых BIFeO<sub>3</sub>

hkl	d <sub>оп</sub>	d <sub>вмч</sub>	I <sub>оп</sub>	I <sub>вмч</sub>	hkl	d <sub>оп</sub>	d <sub>вмч</sub>
100	3,946	3,957	140	120	400	0,9889	0,9892
110	2,809	2,812	171	192	322	0,9685	0,9685
103	2,782	2,785	161	182	410	0,9621	0,9620
111	2,308	2,307	23	23	401	0,9580	0,9575
101	2,273	2,278	65	65	411	0,9375	0,9372
200	1,878	1,878	100	100	411	0,9319	0,9322
210	1,775	1,776	72	60	303	0,9289	0,9282
201	1,761	1,763	37	31	331	0,9149	0,9148
211	1,626	1,629	45	40	331	0,9068	0,9092
211	1,613	1,613	83	75	313	0,9041	0,9037
112	1,607	1,608	42	38	420	0,8885	0,8882
220	1,405	1,406	24	33	402	0,8813	0,8815
202	1,390	1,392	23	32	421	0,8693	0,8691
221	1,330	1,330	7	8	421	0,8614	0,8643
300	1,319	1,319	6	7	412	0,8618	0,8611
212	1,314	1,313	36	39	332	0,8518	0,8515
310	1,254	1,255	29	34	332	0,8427	0,8425
301	1,248	1,248	28	33	323	0,8403	0,8404
311	1,200	1,200	9	5	422	0,8147	0,8143

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311	1,191	1,192	18	11	422	0,8065	0,8065
222	1,138	1,139	14	18	224	0,8041	0,8043
320	1,102	1,102	13	9	430	0,7952	0,7951
302	1,092	1,092	13	8	500	0,7914	0,7914
321	1,000	1,000	22	22	403	0,7878	0,7878
321	1,058	1,058	22	22	431	0,7817	0,7815
312	1,053	1,054	22	22	431	0,7778	0,7775
					501	0,7745	0,7746
					314	0,7728	0,7720

\* *hki* — ромбоэдрические индексы.

Таблица 2

1 Ион	2 Соседи	3 Число соседей	4 Расстояние в $\text{\AA}$	5 Сумма координат радиусов в $\text{\AA}$
$\text{Bi}^{3+}$	$\text{O}^{2-}$	6	2,785 (в слое) 2,812 (между слоями)	2,70
$\text{Fe}^{2+}$	$\text{O}^{2-}$	6	1,978	2,03
$\text{O}^{2-}$	$\text{O}^{2-}$	4	2,785 (в слое) 2,812 (между слоями)	2,72

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B019/B077

Legend to Table 1: Interplanar spacings and intensities of  $\text{BiFeO}_3$  powder patterns; 1) rhombohedral indices.

Legend to Table 2: Interatomic distances with ionic radii according to N. V. Belov and G. B. Bokiy (Ref. 5); 1) ion; 2) neighboring ion; 3) number of neighboring ions; 4) distance in kX; 5) sum of ionic radii in kX.

X

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